

This Calendar Item No. 42  
was approved as Minute Item  
No. 42 by the State Lands  
Commission by a vote of 3  
to 0 at its 6-30-92  
meeting.

CALENDAR ITEM

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06/30/92  
PRC 6425  
Kruger

APPROVE AMENDMENT OF STATE  
GEOTHERMAL RESOURCES LEASE PRC 6425  
LAKE AND MENDOCINO COUNTIES

**LESSEE:**

Unocal Geothermal Division  
P.O. Box 6854  
3576 Unocal Place  
Santa Rosa, California 95406

**BACKGROUND:**

This lease was first issued to the Lessee in 1974 by the Bureau of Land Management. The State Lands Commission acquired title to the leased lands by indemnity selection in March 1983 pursuant to the provisions of 43 USC 852. Three geothermal steam wells have been completed by the Lessee on the property. However, due to the highly corrosive nature of the geothermal steam, these wells have not been produced. In early 1987, a comprehensive study was initiated by the Lessee to determine the extent of the corrosion and find a solution to the problem. The study identified problem areas and provided physical baseline data for future corrosion research.

**LEASE AMENDMENT OF 1989:**

By 1989, research led to a demonstration project on certain wells in the area that were producing the highly corrosive steam. Based on results of the research, the Lessee proposed a work program that was designed to bring the lease into production within five years. This new lease work proposal became an element for development of the geothermal resources, and amendment of the lease was requested. The proposed amendment included a request for a five-year extension that provided if geothermal resources were not being produced and sold in commercial quantities on or before October 31, 1994, this lease

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may be terminated by the State. In October 1989, the Commission approved the amendment of the lease and authorized the proposed work program.

The work program contained timeframes to accomplish geothermal resource development, specifically, for completing corrosion studies, well testing and analysis of test data. A development plan was to be formulated and semi-annual reviews of activity provided to the State.

SEMI-ANNUAL REVIEW OF 1992:

In March 1992, Unocal informed the State that under present business circumstances it would be neither economical nor practical to develop the subject lease. Unocal declared that the submitted work program was impractical due to adverse economic conditions and the difficulties inherent with the utilization of highly corrosive geothermal steam from this type of reservoir. Unocal indicated that geothermal wells in the area of the subject lease are deep and therefore expensive, productivity is generally low and the decline in the production rate is anticipated to be higher than normal.

In place of the work program included in the 1989 lease amendment, the Lessee proposes to join in a cooperative program with agencies of the federal government that are interested in performing scientific research in the lease area. Unocal would cooperate with these agencies to facilitate their continued research. Participating agencies include the U.S. Geological Survey (USGS) and the Department of Energy (DOE). If a lease amendment is approved by the Commission, Unocal and USGS will jointly develop a scientific research program. The proposal would be submitted to DOE and the staff of the Commission for final review and approval.

PROPOSED LEASE AMENDMENT OF 1992:

The joint scientific research program is to be conducted during the present lease term which expires October 31, 1994. The scientific program will replace the current work program. All other terms and conditions of the lease document will remain in full force and effect including present rental and royalty rates and the requirement to provide the State with semi-annual reviews of activity.

The proposed scientific research program will include temperature logging, downhole fluid sampling and analysis, and core-drilling that will provide insight into the evolution of the reservoir and the cause of the corrosive steam. All scientific data, including, but not limited to, logs, test results, tape recorded temperature and pressure measurements, and technical reports shall be filed promptly with the State.

**STATUTORY AND OTHER REFERENCES:**

- A. P.R.C. Div. 6, Parts 1 and 2, Div. 13.
- B. Cal. Code Regs.: Title 2, Div. 3, Title 14, Div. 6.

AB 884:

N/A.

**OTHER PERTINENT INFORMATION:**

- 1. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (14 Cal. Code Regs. 15061), the staff has determined that the proposed activity is a categorically exempt project from the requirements of CEQA under Class 6, Information Collection, 14 Cal. Code Regs. 15306.

Authority: P.R.C. 21084, 14 Cal. Codes Regs. 15300.

- 2. Based on the continuing research program, plans may be developed that would allow this lease to produce geothermal resources in a safe and economical manner.

**IT IS RECOMMENDED THE COMMISSION:**

- 1. FIND THAT THE PROPOSED ACTIVITY IS EXEMPT FROM THE REQUIREMENTS OF CEQA, PURSUANT TO 14 CAL. CODE REGS. 15061, AS A CATEGORICALLY EXEMPT PROJECT, CLASS 6, INFORMATION COLLECTION, 14 CAL CODE REGS. 15306.
- 2. APPROVE AMENDMENT OF GEOTHERMAL RESOURCES LEASE PRC 6425 TO INCLUDE THE JOINT SCIENTIFIC RESEARCH PROGRAM CONTINGENT UPON ITS REVIEW AND APPROVAL BY STAFF; ALL OTHER TERMS AND CONDITIONS OF THE LEASE TO REMAIN IN FULL FORCE AND EFFECT.